BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Three CRADAs Bring BNL's Active Total to 29

Connecting to the Information Superhighway, improving bioremediation for food wastes and making materials for better batteries — the subjects of three new Cooperative Research and Development Agreements (CRADAs) recently signed by BNL reflect the diversity of the Laboratory's resources. Brookhaven currently has 29 of these technology-transfer agreements between BNL and industry — with more to come later this year.

The new CRADAs involve the expertise of researchers from varied scientific and technical disciplines:

• NYSERNet, Inc. — Regional high-speed computer network link to the Information Superhighway

Mark Wiesenberg, head of the Computing and Communications Division (CCD), and CCD staffers Graham Campbell, George Rabinowitz, Michael Torres and Sharon Yen are working with NYSERNet, Inc. — the New York State nonprofit provider of the worldwide computer network known as Internet — to develop a high-speed regional computer network suitable for connecting to the nationwide Information Superhighway.

In collaboration with NYSERNet, Inc., and the State University of New York at Stony Brook, BNL will establish this computer connection to several regional research institutions using the emerging Asynchronous Transfer Mode communications technology. This state-of-the-art technology will eventually allow information to be sent across the network at a speed of 2.2 billion bits per second — roughly 16,000 typed pages in the blink of an eye. To make this technological feat possible, Cablevision Systems Corporation will implement the initial fiber-optic transport and Northrop Grumman Corporation will provide expertise in image handling.

The initial applications, which earlier this year had been successfully accomplished on an experimental basis, are the transmission of medical images between institutions, as well as computer visualization, which creates dynamic computer graphics to help understand data. The applications will eventually be expanded to include desktop videoconferencing; distance learning, which permits users to tune in to a lecture on their computer screens from anywhere across the network; and remote experimentation, in which researchers can set up and monitor experiments from locations throughout the network. Other universities and commercial institutions are likely to join this effort.

• Environmental Solutions Corporation — Biochemical technology for processing food industry wastes

Bioremediation uses selected nonpathogenic bacteria to degrade grease and organic solids into environmentally acceptable by-products. Such biochemical processing is better than cleaning up wastes by mechanical methods, such as grease traps, which are only a temporary solution, or chemicals, like solvents or acids.

Environmental Solutions Corporation, a start-up wastewater treatment firm based in Stony Brook, has installed over 70 grease-bioremediaton systems in restaurants throughout the area. The company hopes to improve its current mixtures through the addition or substitution of grease-eating strains identified at Brookhaven.

Eugene Premuzic and Mow Lin, both Department of Applied Science (DAS), are working to identify new microbial strains used for bioremediation of this waste that will optimize performance. Commercial processes that currently use microorganisms to degrade grease and other organic matter in food-derived wastewater produce large, foul-smelling chunks of biomass that clog septic systems. The DAS researchers expect to eliminate these unwanted by-products.

Roger Stoutenburgh

In relation to a new CRADA, (clockwise from bottom left) Myron Strongin and Mark Ruckman, both from BNL's Physics Deparment; Harold Wiesmann, BNL's Department of Applied Science; Philip Soo, Cornell University; and Evelyn Gallego, also Physics, study hydrogen absorption by layered metal films that might be used in metal-hydrogen batteries.

• Energy Conversion Devices, Inc., Ovonic Battery Company Division (OBCD) — Developing materials for better batteries

If toxic nickel-cadmium batteries, used in a wide range of electronic and photographic equipment, could be replaced with metal-hydrogen batteries, the result would be better for the environment.

Myron Strongin and Mark Ruckman, both from the Physics Department, and Harold Wiesmann, DAS, are fabricating and characterizing materials to be used for the anode, the terminal at which hydrogen is stored, in metal-hydrogen batteries. In previous research, they had found that, by sandwiching metals such as niobium and palladium in thin multilayers, the metals have the potential to absorb more hydrogen than usual. The thin sandwich structure is a candidate for more powerful batteries. Also, using these metal multilayers eliminates the brittle phase, due to metal-hydrogen compound formation, that may lead to cracks in the battery.

The anticipated result of this collaboration is a new type of hydrogen-containing anode for metal-hydrogen batteries. OBCD, based in Troy, Michigan, will test prototype batteries and, if they meet expectations, then will eventually market the improved product. In addition to being more powerful, the new batteries are expected to charge faster than conventional ones.

— Diane Greenberg

HFBR Back In Business

On Wednesday, June 8, the Reactor Division restarted the High Flux Beam Reactor (HFBR), which had been shut down since March 31, when a fire occurred at TRISTAN, an experimental station inside the reactor building. The reactor itself was not directly involved in the fire.

Although official approval from the U.S. Department of Energy had been anticipated weeks ago, it was delayed.

TRISTAN will be redesigned and reviewed for safety before being allowed to restart. The other 14 experiments at the HFBR were back in business doing research last week.

Report Indicates BNLers Are a Pretty Healthy Bunch

Rate of diagnosis at BNL

	Employee Categories	Number of Workers	Number of Diagnoses*	Crude Rate per 1,000*	Age-Adjusted Rate per 1,000**
1990	Male	2,497	149	59.7	49.0
	Female	710	62	87.3	83.9
	TOTAL	3,207	211	65.8	60.5
1991	Male	2,507	143	57.0	50.8
	Female	740	45	60.8	59.7
	TOTAL	3,247	188	57.9	53.8
1992	Male	2,650	118	44.5	42.6
	Female	787	52	66.1	58.7
	TOTAL	3,437	170	49.5	46.9

*All diagnoses reported with an absence of 21 or more days, including absences for pregnancy and delivery.
**Standardized to age distribution of 1979 U.S. population.
Chart taken from "Epidemiologic Surveillance, Annual Summary for Brookhaven National Laboratory, 1992," prepared by the Epidemiologic Surveillance Data Center.

The number of BNL employees absent from work due to long-term illness and injury has declined two years in a row, according to a recently published report.

Only 49.5 out of every 1,000 BNLers — 46.9 when the population's characteristics are adjusted to resemble the U.S. population — were off the job for 21 or more consecutive days in 1992, for all reasons including pregnancy and childbirth. That's down from an adjusted rate of 53.8 per 1,000 in 1991, and 60.5 per 1,000 in 1990. Female BNL employees especially saw a decrease in the number of long-term absences over that period, from 83.9 per 1,000 in 1990 to a 1992 rate of 58.7 per 1,000. (See chart at left.)

Meanwhile, 20 active employees died between 1990 and 1993, 12 of them from gastrointestinal, respiratory, breast, prostate, lymph or other cancer.

In 1992, the most likely reason for BNLers to be out for lengthy periods was non-occupational injury, such as falls and transportation accidents. Circulatory system diseases came in second, while 22 BNL women were out for extended periods to have babies. Meanwhile, only two cases of malignant cancer — digestive system and breast, respectively — were responsible for long-term absences in 1992.

"Epidemiologic Surveillance: Annual Summary for Brookhaven National Laboratory" tracks the causes and rates of prolonged absences and deaths. It was prepared jointly by the University of Washington and the Fred Hutchinson Cancer Research Center as one in an ongoing series of reports on participating U.S Department of Energy (DOE) facilities, also including Fernald, Hanford, Idaho Falls, Rocky Flats, Sandia and Savannah River.

Beginning in 1993, the epidemiological survey started tracking illnesses and injuries that cause employ-

(continued on page 3)

Learn About Lyme

A seminar on "Lyme Disease: Education and Prevention Techniques" will be offered on Thursday, June 23, from 12:45 to 1:45 p.m., by the Safety & Environmental Protection (SEP) Division in cooperation with the Health Promotion Program (HPP) of the Occupational Medicine Clinic. The speaker will be Judith Hason, Education Chair of the Lyme Coalition of New York State and a member of the Board of the Long Island Chapter of the Arthritis Foundation.

Lyme disease is a potentially serious illness transmitted to humans by infected ticks, but it is preventable and curable. Long Island has the highest incident rate of Lyme disease in the U.S.

HPP Coordinator Mary Wood will introduce Hason, who contracted Lyme disease in 1988 but was not diagnosed until 1989. When the disease forced her to stop working with her hands, she became involved with Lyme disease education. After discussing how to prevent the disease, what to do if you think you have it, how it is diagnosed and where to find support groups, she will answer questions.

For more information, call Frank Biele, SEP, Ext. 7717.

Software Seminar

The Network Services Group of the Computing & Communications Division (CCD) will hold a seminar on Thursday, June 23, to announce the new BNL Individual Dial-Up Access Service for the serial line Internet protocol known as SLIP and terminal access, which will allow network and Internet access via an 800 telephone number. The meeting will start at 11 a.m. in the CCD seminar room, Bldg. 515. For more information, call Sharon Yen, Ext. 7140.

Speakers Bureau

The following speakers have given talks on behalf of the Laboratory:

Ronald Ondrovic, DCP: Rocky Point Rotary Club, "BNL in General," Feb. 15.

Louise Hanson, DAS: Three Village Central School District Conference, "Helping Girls With Choice," Mar. 8.

Donald Gardner, Phys.: Harborfields High School Career Day, "Careers in Engineering," Mar. 9.

Victor Gutierrez, DO: Seaford High School Career Day, "Careers in Engineering," Mar. 23.

Michael Brennan, AGS: John Glenn High School Career Day, "Careers in Math & Science," Apr. 7.

Louise Hanson, DAS; **Gail Williams,** Pers.: Southampton College Round Table Discussion With Undergraduate Students, Apr. 21.

Arlene Carlson, PE: Bellmore/Merrick High School Career Day, "Careers for Women in Science & Math," Apr. 30.

Meyer Steinberg, DAT: Long Island School for the Gifted in Huntington, "Careers at BNL," May 3.

Edward Stein, RHIC: East Islip H.S. Career Day, "Careers at BNL," May 4.

Kathryn Hornik, RHIC; **Roy Lebel,** RHIC; **Albert Prodell,** RHIC; **Margareta Rehak,** RHIC: Science Fair at Captree BOCES Learning Center, Science Fair Judges, May 13.

Donald Gardner, Phys.: Bellport Middle School Career Day, "Careers in Engineering," May 17.

Lori Bower, SEP: Career Day at Oyster Bay High School, "Careers at BNL," June 10.

It Doesn't Get Much Fresher Than This

If variety is the spice of life, the weekly BNL Farmer's Market must be a pretty lively place -- and it is.

Every summer Wednesday for the past twelve years, a handful of local farmers has sold a cornucopia of fruits, vegetables, herbs and baked goods on tables in a parking lot behind the Science Education Center, Bldg. 438, from 11:30 a.m. to 1:30 p.m.

Between Memorial Day and the week before Thanksgiving, BNL employees and visitors have had the products of the island's rural East End brought to them — most the day they are harvested or baked. For many, the market has become a traditional lunchtime stop and has provided the basis for more than a few dinners.

On any given Wednesday, there may be a flower-seller with flats of petunias and overflowing hanging baskets of impatiens; a table of fragrant herbs and cut flowers; a beekeeper selling his sweet products; and several farmers with bushel baskets of the latest crops.

As the weather changes, so does the selection. "I think by now, people here are learning to eat what's in season," said Susan Wells of Wells Homestead Acres in Aquebogue, as she bundled asparagus barely fast enough to keep up with demand. Her table's array of potted herb seedlings and plump pea pods, as well as tall cut stalks of purple and blue delphinium, showed that spring is in full swing at the Wells farm, which has been in her husband Lyle's family since 1660.

Roger Stoutenburgh

Among other shoppers at this Wednesday's Farmers' Market, (from right) BNL's farmers' market coordinator Georgia Irving, Alyce Daly, Edwin Popenoe and Hue-Anh Pham buy farm-fresh produce from Susan Wells (left) of Wells Homestead Acres.

The Wells farm was one of the first to send a truck of produce to the BNL market, which was begun in 1982 through the New York State Department of Agriculture and Markets. Susan Wells now serves as the farmers' coordinator, while Georgia Irving, Director's Office, collects the $30 fees and certificates of insurance, and coordinates required contracts with the U.S. Department of Energy.

Another traditional BNL farmer's market landmark is Briermere Farms of Riverhead. Its owner, Clark McCombe, brings a helper and a white truck full of vegetables, berries, cider, and Briermere's famous pies and baked goods every week.

"I think people would be really disappointed if we didn't come," McCombe said, adding that many of his Lab customers are happy to save a 20-mile or more trip to the North Fork to buy fresh local produce and the renowned goodies made by his mother and two brothers.

New this year is the Peconic River Herb Farm of Calverton, represented at last week's market by Jill Yeck, who sold cut herbs and flowers as well as herbal bath salts, bubble baths and vinegars.

Employees looking for lunch under the green umbrella found bags of cut and washed salad greens — including some exotic-looking but entirely edible flowers — to be topped by the farm's own dressing.

While Yeck is meeting many BNLers for the first time, McCombe and Wells say they've come to recognize familiar faces in the crowds that file past their stands on the way back to work. Said Wells, "I think I know just about everybody by now."

—Kara Villamil

Strawberry Fields Are Forever, But Pickin' Time Is Now

Stawberries are the fruit of indulgence. They are wickedly red, sweet and plump, yet good for you too, and it's time again to pick your own in nearby fields.

Think about the possibilities: enjoying a decadent breakfast of strawberries, powdered sugar and champagne, or simply plopping them into your cereal for a bite of captured sunshine.

Area farms are now open for you to pick your own strawberries until the season ends, around the first week of July. The earlier you go, the bigger the strawberries will be because the first ones produced by each plant are the biggest, said Bill Sanok, a Cornell Cooperative Extension agent in Riverhead.

"The benefits of picking your own strawberries are that they are locally grown, and you can pick them at the peak of quality," he said.

The savings are also mouth-watering. Most farms provide quart containers and charge $1.25 to $1.50 a quart. This is half the price of berries selling for $1.21 a *pint* in one area grocery store.

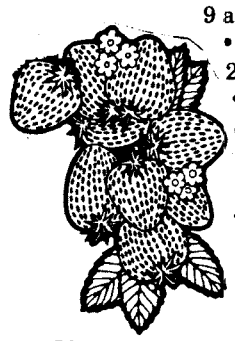
If that is not enough enticement to sample a bit of back-bending farm life, area strawberry crops are "excellent" this year because of dry weather, Sanok said. Drier weather allows farmers to control moisture in the fields, through irrigation, and prevent rotting of the fruit.

Sanok advises pickers to go early in the day to beat the heat, and to pick only what they can enjoy or preserve over the next few days because strawberries don't stay fresh for long. Store them in a cool, dry place, or freeze or preserve them for later use.

Call the Extension's Tele-Cue automated message system (369-2100 in East Suffolk, 854-1450 in West Suffolk) and press 0302 for the names and hours of pick-your-own locations.

Here is a sample of these farms:

- **Anderson Farms:** Route 58, Riverhead, 727-2559 or 727-1129 - Open Monday through Friday 9 a.m. to 6 p.m., and Saturday and Sunday 8 a.m. to 6 p.m.
- **Berezny Farms:** Sound Avenue, Riverhead, 722-3823 - Open daily 9 a.m. to 5:30 p.m.
- **Glover Farms:** 4 Strawberry Lane, Brookhaven, 286-2226 or 286-7876 - Open daily 8 a.m. to 6 p.m.
- **Hodun Farms:** River Road, Calverton, 727-2618 - Open daily 9 a.m. to 5 p.m.
- **Lewin Farms:** 123 Sound Avenue, Calverton, 929-4367 - Open daily 7 a.m. to 7 p.m. until about the last week in June and then 9 a.m. to 5 p.m. until early July.
- **Rottkamp's Fox Hollow Farm:** 143 Sound Avenue, Calverton, 727-1786 - Currently open weekends 9 a.m. to 4:30 p.m., but hours and days may be extended in the near future.



If you are a real strawberry connoisseur, you may also want to check these places and other farmers, markets for fresh strawberry products. For example, Briermere Farms, which has a stand at BNL's Wednesday Farmers' Market (see accompanying story), sells a heavenly rhubarb and strawberry pie.

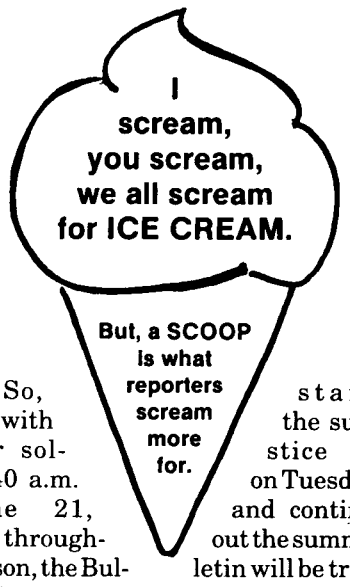
Recycled Paper — Do You Copy?

Beginning the week of June 20, the Quick Copy Service in the Photography & Graphic Arts Division will begin a program of testing the use of recycled paper because the U.S. Department of Energy expects greater use of recycled paper with significant amounts of post-consumer waste. Thus, Quick Copy will be using copy paper with 100-percent recycled content to evaluate machine performance and user acceptability. This paper is decidedly off-white.

"We are obviously eager to know the Lab community's reaction to this effort," said Graphic Arts Supervisor Ken Boehm, "so we will include with each completed job a survey memo to capture your comments. Please take a moment to complete it and send it back to us."

Quick Copy customers who feel that their work must be reproduced on standard paper should indicate that on their order forms. For more information, call Joe Hanson, Ext. 2900.

Scoop of the Week



So, starting with the summer solstice at 10:40 a.m. on Tuesday, June 21, and continuing throughout the summer season, the Bulletin will be trading ice cream and frozen yogurt for hot tips in the 7th annual Scoop of the Week contest.

If you can scoop all of the Bulletin's informed sources with a hot tip — an idea for Brookhaven news or a feature — and if the Bulletin publishes a story based on your idea, then the Editor will award you a Scoop of the Week, in the form of a certificate for a free frozen dessert of your choice, compliments of Service America Corporation, which operates the Cafeteria, where Scoops of the Week may be redeemed.

So, rush your news and feature tips to the Brookhaven Bulletin, Bldg. 134, or call Ext. 5053. If your idea results in a Scoop of the Week, your name will be announced in the Bulletin, after which you will receive your certificate in the interLab mail.

BWIS Cocktail Party

Brookhaven Women in Science (BWIS) will host its 15th Annual Cocktail Party on Monday, June 20, from 5:15 to 7 p.m., on the patio of the Brookhaven Center or in the North Room, in the event of rain. Hot and cold hors d'oeuvres will be served, and there will be a cash bar.

Tickets are $3 for students with ID and $5 for others. To reserve, call Lisa Tranquada, Ext. 7731, or Pam Mansfield, Ext. 7286.

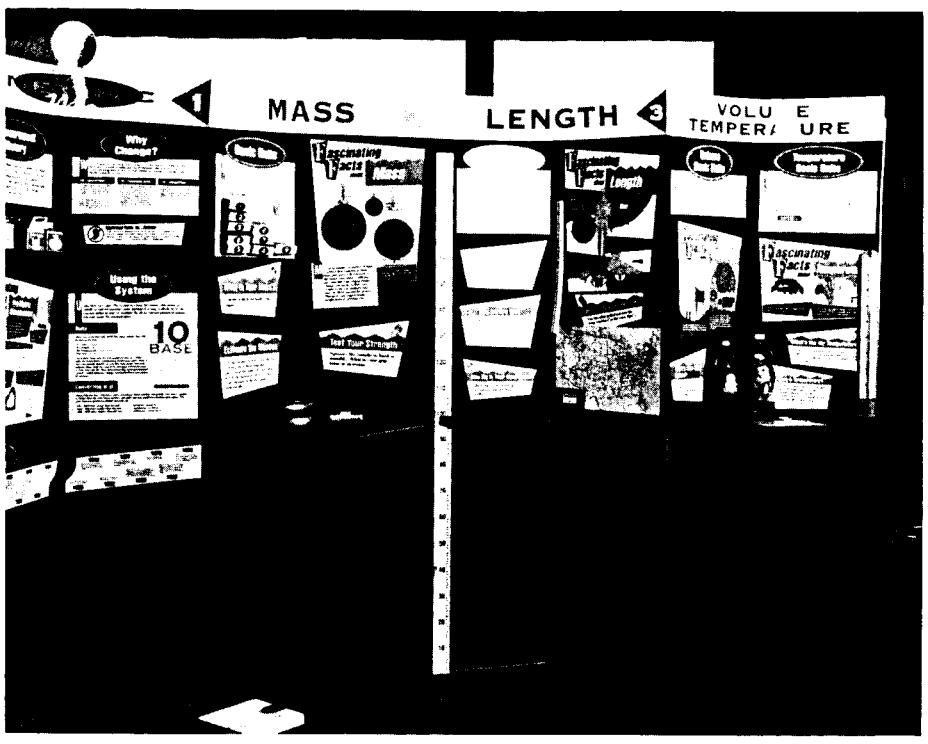
Amateur Radio Club To Host Field Day

The Amateur Radio Club will meet on Thursday, June 23, at noon in Berkner Hall, Room D, to discuss the upcoming Field Day at BNL on Saturday, June 25, from 2 p.m. to dusk, and on Sunday, June 26, from 10 a.m. to 1 p.m. The exercise will be held in the recreation area on the Laboratory site.

Field Day is part of a national competition in which thousands of ham radio operators all across the country will test their skills in emergency communication in the field, using portable and emergency power sources. At BNL, the Amateur Radio Club will set up several transmitter sites, using portable towers and antennas.

Employees, guests and licensed ham radio operators are invited to both the club meeting and Field Day. For more information, call Nick Franco, Ext. 5467.

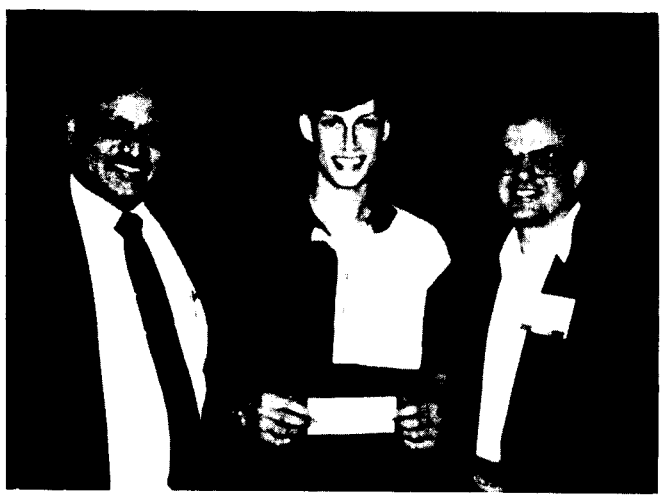
'The Metric Me' on Display



Roger Stoutenburgh

What's your mass? How tall are you? If the metric answers to these questions don't come easily, stop by this display, which is in Berkner Hall through next week. Entitled "The Metric Me," the display has been loaned to BNL by the U.S. Department of Energy. BNL's Metric Coordinator, John DiNicola, was instrumental in bringing the display to the Lab and is happy to answer any metric-related questions; just call him at Ext. 5100.

Polished Skills Win Polishing Contest



Suffolk Community College (SCC) student Timothy Murphy (center) holds a $100 check from the Long Island Chapter of ASM International, a professional organization for materials scientists, metallurgists and researchers in related fields. Murphy placed first in a metallographic polishing contest held April 20 at BNL, during a meeting of the chapter. He polished and etched a piece of high-carbon steel, the kind of material used to make steel knives.

Murphy had learned the technique in an introductory materials science course taught by Robert Sabatini (right), a materials scientist in BNL's Department of Applied Science (DAS) and an adjunct faculty member at SCC. T. Rao Tipirneni (left), president of L.I. Testing Laboratory, a materials-testing lab in North Babylon, was one of the contest judges, along with Dick Richards, a retired SCC professor, and James Hurst, DAS. The purpose of the contest was to support and promote undergraduate and graduate students in materials science.

According to Sabatini, the contest was not just a test of technique, but also a test of patience and observational skills. Polishing makes a smooth and scratch-free surface, and etching reveals the microstructure of the material. Constant checking with an optical microscope ensures good results.

Both the contest and meeting at BNL were organized by Kathryn Warburton, DAS, and Carl Czajkowski, BNL's Department of Advanced Technology.

Healthy Bunch (cont'd)

ees to call in sick for five days or more.

The head of BNL's Occupational Medical Clinic, Bryce Breitenstein, was an originator of the survey in the 1980s, when he was president of the Hanford Environmental Health Foundation at DOE's Hanford site.

Breitenstein commented that the report indicates that the Lab's population does not appear to be experiencing any epidemics of major illnesses.

"I believe that if there were an excessive amount of any one diagnosis, for example breast cancer, among employees, we'd pick it up, but we're seeing only expected findings," he said. "We're basically finding about the same rates one would find in the general population."

In fact, Breitenstein continued, BNL's employees seem to be showing the "healthy worker effect": Those who are employed and have health-care coverage tend to be healthier than the "average" American.

BNL's Occupational Medical Clinic collects the survey data at medical examinations performed when employees return to work after any occupational injury, any illness absence of more than five days or any new diagnosis of a malignancy. That information, along with data on patient age, sex and job classification, but not names, is sent to the University of Washington.

Also collected is information from the death certificates of people who died while they were active employees, and information from BNLers on long-term disablity.

Taken together, the data give a picture of major illnesses among BNLers. However, Breitenstein said, some illnesses may be underreported because not all employees come in for an examination after brief illnesses. The clinic is working on ways to improve its data-collection methods in order to make the report even more representative.

Two copies of the report have been placed on reserve in the Research Library, Bldg. 477, and Breitenstein also has several copies that may be reviewed at the Clinic in Bldg. 490.

—Kara Villamil

Reports Available

The following reports are available to Lab staff and affiliates of DOE, AUI and NRC. Others may purchase them from the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161. Staff members should call the designated contact.

BNL-NUREG-52383
NUREG/CR-6078
Contact: M. Chaloupka, Ext. 2746
Analysis of Crack Initiation and Growth in the High-Level Vibration Test at Tadotsu. M.K. Kassir, Y.J. Park, C.H. Hofmayer, K.K. Bandyopadhyay, S. Shteyngart

BNL-NUREG-52345
NUREG/CR-5939
Contact: P. Ennis, Ext. 7632
Effects of Age on Nuclear Power Plant Containment Cooling Systems. R. Lofaro, M. Subhudi, R. Travis, A. DiBiasio, A. Azarm

A Blue-Ribbon Smile

Roger Stoutenburgh

Kevin Acunto proudly shows off his blue ribbon at the annual Elementary School Science Fair held at BNL on Saturday, May 14. A student at Suffolk Lutheran in Lake Grove, Kevin took first place at the kindergarten grade level with his project, entitled "Which Takes in More Heat From Light: Black or White?" Over 400 science projects, involving more than 700 children from 96 Suffolk County schools, were entered in the fair and judged by teams of Brookhaven scientists and local elementary school teachers, based on scientific thought, creativity, thoroughness and clarity. Seven prizes were awarded, one for each grade level from kindergarten through grade 6, and many honorable mention ribbons were also given out. The fair is organized by Museum Programs in the Public Affairs Office.

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IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, June 20, at 6 p.m., in the Knights of Columbus Hall, Railroad Ave., Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers in the Union office at 31 Oak Street, Patchogue. The agenda includes regular business, committee reports and the president's report.

Golf Tournaments

The third BGA Golf Tournament will be held on Wednesday, June 29, on the Black Course of the Bethpage State Park. For information, call Rick Jackimowicz, Ext. 3803.

The second BGA Tournament was held on a rainy May 19 at Montauk Downs, with the following results:

	Low Gross	Low Net
Flight A	John Axe	Mike Losquadro & Clift Katon
Flight B	John Millener	Andres Ruga
Flight C	Tom Dilgen	Carmine Caggiano
Flight D	Dennis Hall	Bob Schuman
Flight E	John Kramer	—

Vroom, Vroom

Due to popular demand, six-hour defensive driving courses will resume at the Lab, to be offered once a month from June through December. Sponsored by the Safety & Environmental Protection Division and the Health Promotion Program of the Occupational Medicine Clinic, the classes will be held 6-9 p.m. weekdays or 9 a.m. to 3:30 p.m. on Saturdays. The classes are approved by the National Safety Council and those who complete the course qualify for insurance-rate reductions and/or driver's license points reduction. So, even already safe drivers will benefit by attending.

At $19.95 per person, the course is open to all employees, guests and their family members. To sign up, send your name and extension to Ronnie Zambelli, Bldg. 129A, or Mary Wood, Bldg. 490.

Arrivals & Departures

Arrivals

Divine Adika ..... App. Science
George R. Holeman ... Saf. & Env. Prot.
Slawomir Kwiatkowski ..... RHIC

Departures

This list includes all employees who have terminated from the Lab, including retirees.

Jerry Chang ..... RHIC
James E. Rutherford ..... Physics
Wei-Qing Zhou ..... App. Science

Cafeteria Job Opening

Service America Corporation (SAC), which manages the Cafeteria, is seeking a full-time bookkeeper, preferably with 1-5 years' experience in food service, knowledge of Lotus 1-2-3 and an associate's degree in business administration. SAC offers extensive medical benefits and is an equal opportunity employer. Apply in person, with resume, Monday, Tuesday and Wednesday, 1:30 to 4:30 p.m.

Cafeteria Menu

Monday, June 20	
Soup: Beef barley	.80/1.10
A la Carte: Cod w/mustard beurre blanc	3.55
Fitness: Ratatouille calzone	2.75
Deli: Pastrami sandwich	2.95
Grill: Reuben platter	2.95
Tuesday, June 21	
Soup: Chicken & rice	.80/1.10
A la Carte: Veal Parmesan	3.75
Fitness: Balsamic grilled veggie tart	3.35
Deli: Hot Virginia ham sandwich	2.95
Grill: Lamb kabobs	2.95
Wednesday, June 22	
Soup: Cream of broccoli	.80/1.10
A la Carte: Veggie au gratin	2.95
Fitness: Pork chops	4.25
Deli: Roast beef sandwich	2.95
Grill: Monte Cristo	2.95
Thursday, June 23	
Soup: Black bean	.80/1.10
A la Carte: Smoked-braised short ribs	4.25
Fitness: Southwest grilled chicken	3.50
Deli: Sliced turkey w/gravy	2.95
Grill: Philly cheesesteak	2.95
Friday, June 24	
Soup: New England clam chowder	.80/1.10
Display Cooking: Pasta	
Fitness: Flounder julienne	3.55
Deli: Hot corned beef sandwich	2.95
Grill: Tuna melt	2.95

Equipment Demo

On Thursday, June 23, from 10 a.m. to 2 p.m. in Berkner Hall, Hewlett-Packard (HP) will hold its 1994 Technology Expo. It will feature HP test and measurement products and services, including impedance analyzers, dynamic signal analyzers, modular measurement systems and more.

During the expo, HP will introduce its 89440 Vector Signal Analyzer, 54610A Two-Channel Oscilloscope, 4291A RF Impedance Analyzer and other new products. Don't miss the drawing for the free, hand-held DMM.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

SCIENTIFIC RECRUITMENT - Doctorate normally required. Candidates may apply directly to the department representative named.

POSTDOCTORAL RESEARCH ASSOCIATE - Trained in biology, including general microbiological techniques, with experience in electrophoretic gels, cloning and sequencing, to join a molecular biology program involving the influence of DNA configuration on mutagenesis. Contact: Jane Setlow, Biology Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 2778. SUPERVISOR OF PROJECT COORDINATION - Requires a bachelor's degree in architecture or engineering, experience in the design, construction and management of large projects, prior supervisory experience, demonstrated leadership qualities, knowledge of Laboratory policies and procedures, and excellent communication skills. PE license is preferred. Responsibilities include planning and coordinating major building and utility construction projects, acting as liaison with contract A/E firms and directing the activities of a group of architects and engineers within the Division. (reposting) Plant Engineering Division.

DD 0799. BUDGET POSITION - (term appointment) Requires a BS in accounting or related experience and excellent communication skills. Extensive computer experience, i.e. LOTUS, WordPerfect, spreadsheets also required. IPAP experience desirable. Responsibilities will include budget preparation and update, labor distribution, cost tracking and analysis, allocation of central services as well as journal vouchers, review of Lab cost reports and monthly reports to the Department of Energy. Medical Department.

DD 2553. TECHNICAL POSITION - Requires an AAS with emphasis in engineering or physical science or equivalent; AAS in health physics is desirable. Several years' health physics or industrial hygiene technician experience is also required, as is the ability to obtain and maintain a security clearance. Shift work may be required. Safety & Environmental Protection Division.

Motor Vehicles & Supplies

93 HYUNDAI SONATA - black, V-6, anti-lock brakes, p/sunroof, anti-theft stereo, tinted windows, 4 yrs. left on ext. warr. Ext. 2459 or 287-3262 after 5 p.m.

92 BUICK LESABRE LIMITED - burgundy, V-6, ABS, full power, climate control, 29k mi., $16,000. Richard, Ext. 3804 or 286-3471.

90 CHEVY CORSICA - hb, lt. grey, 56k mi., excel. cond., fully loaded, $6,000. Tony, Ext. 3194.

88 HONDA PRELUDE 2.0 SI - a/t, all power, moon roof, white, v.g., $6,500. Jeff or Allison, 286-1348.

88 CHEVY S-10 BLAZER - loaded, low mileage, excel. cond., $8,800. Carter, Ext. 7599.

88 SENTRA - 2-dr., ac, a/t, new engine, brakes, tires, muffler, battery, dented fenders. 331-4538.

87 CHRYSLER LE BARON - 4 dr., sedan, a/t, 86k mi., p/s, ac, cruise, am/fm stereo, new tires, excel. cond., $2,000. Takao, 341-1012.

87 JEEP COMANCHE - 4x4 pickup, new engine, new clutch, asking $3,000 neg. 744-2096.

87 TOYOTA SUPRA - loaded, excel cond., best offer. Ext. 3695, leave message.

86 CHEVY CELEBRITY EUROSPORT - V-6, rebuilt tranny, high mi., runs well, inter. good, black, asking $1,900. Demetra, 366-4273.

86 OLDS CIERA - good cond., fully equipped, dependable, $1,350. Ext. 7194 or 929-3683.

86 CHEVY SUBURBAN - white, deep tint, 2WD, clean, $4,800. 744-1706.

86 MITSUBISHI MIRAGE LE - a/t, 3-spd., v.g. cond., 95k mi., new trans., 4 tires, head gasket, exhaust, clean, $1,500. Ed, Ext. 5914.

86 NISSAN - excel. cond., 5-spd., 89k mi., red, $1,550 neg. Al, 924-0960.

85 CUTLASS CIERA - 4-cyl., 100k mi., dependable trans., needs minor mech. work, asking $1,100. Joe, Ext. 5139.

85 OLDS CUTLASS SUPREME - 62k mi., new front brakes & tires, v.g. cond., $3,000 neg. Augie or Janet, 665-3916.

85 MITSUBISHI TREDIA - 5-spd., 50k mi., orig. owner, new tires, clutch, battery, runs well, asking $1,000. S. Mukerjee, Ext. 4973.

85 NISSAN MAXIMA - excel. cond., all-power, moon roof, am/fm cass., $3,300. 395-4733.

84 AUDI 5000 - sw, high hgwy. mi., good cond. 878-6747.

84 DUMP TRUCK - Sierra 3500, dual axle, super clean, 292-h.p., elec. PTO, 7-yard dump body, must see, $6,000. Randy, 286-1330.

83 NISSAN PULSAR NX - runs well, looks bad, needs some work, best offer. Rich, Ext. 2386.

81 LINCOLN CONTINENTAL MARK VI - Bill Blass edition, new exhaust, all available options, 2-tone paint, $1,900. Ben, Ext. 7732 or 698-0057.

79 PONTIAC CATALINA - tuned-up, new brakes, tires, 4.9L, runs well, asking $450. Tommy, 475-5374.

78 CORVETTE - 4-spd., blue/ivory, 2 prs. of tops, new tires, exhaust, v.g. cond., $4,900. Gerry, 878-1790.

78 FORD GRANADA - p/s, 6-cyl., new brakes, runs well, $600; custom car cover for Lincoln Town Car; tow bars. Harvey, 281-7568.

76 LANCIA SCORPION - 2-seat, mid-engine, sports car, some rust, needs body work & paint, good cond mech., John, Ext. 2788.

71 PONTIAC LE MANS CONVERTIBLE - 76k mi., all orig., a/t, excel. cond. Ryan, 878-1178.

69 BUICK SKYLARK - $350. Jon, Ext. 5680 or 363-3661.

TRUCK REAR AXLE - 1-ton, Spicer 60, complete w/ drums & brakes, $100. Fred, Ext. 4798.

TIRES - P225x75R14, 2, excel., $35/ea.; P225x75R15, brand-new, $35/ea. 698-9274.

CARBURETOR - Holley, 4-barrel, 600 cfm, single-pump, excel., $80. 744-1194 eves.

RIMS - Ford pickup, alum. rims; 69 Mustang rear seats, cheap. Wayne, Ext. 7238.

Boats & Marine Supplies

26' PENN YAN CRUISER - all fg, new FWC, inboard, tunnel drive, 19" draft, great cond., $6,400. Gerry, 878-1790.

23' PEARSON SAILBOAT - 1979, MJG, head, galley, ob, well maintained, equipped. John, Ext. 2788.

23' PUMA SAILBOAT - all fg, sleeps 4, galley, fixed keel, mooring, dinghy, motor, sails in good shape, $2,500. Mike, Ext. 7861 or 698-3967.

20' CLAMBOAT - fg, cabin, self-bailing, great work boat, excel. cond., in water, $750. 563-6680.

19' BOAT - 85-h.p. outboard, w/controls, has new water pump, 19'-long new tilt trailer. 369-8683.

19' FIBERFORM - 1976, V8, Mercruiser i/o, V-bunk, depth finder, VHF radio. Ext. 5286 or 298-9594.

16' STARCRAFT - w/35 h.p. Evinrude, Cox galvanized trailer. 325-0447 after 6 p.m.

15' JY15 SAILBOAT - one design, class legal, excel. cond., $2,900. Ext. 2872 or 928-1485 eves.

14' GRUMMAN FISHERMAN - 1988, 25-h.p. Evinrude, trailer, will sell depth finder, trolling motor extra $800. John, Ext. 2765.

14' SUNFISH SAILBOAT - excel. cond., new rudder, tiller, centerboard, auto bailer, more, $675. George, Ext. 3061 or 751-0265 eves.

12' MIRROCRAFT - alum., cushions, oars, good cond., $350. Pat, Ext. 2452.

12' SEA EAGLE - 1993, inflatable, hard floor, wooden transom, will take up to 15-h.p. motor, used twice, trailer, orig. $750, sell for $625. Ext. 2238.

Furnishings & Appliances

AIR CONDITIONER - Amana Super Thrust, 13,300 Btu, 9.5 EER, slide-in chassis, excel. cond., $300. 473-6546.

BEDS - bunk, pine, good cond., will deliver; 9'x12' mosaic area rug, $50/ea. Bill, Ext. 7961.

BOOKCASE - walnut, 2 shelves, 36"H, like new, $20; bar, 72" long, $50. Alice, Ext. 2274 or 744-4835.

BOX SPRING - split, queen-size, w/frame, like new, $75. 563-6680.

COFFEE TABLE - 1½"-thick pine, dark Col. finish, $30. Nick, Ext. 7307.

CRIB/BED - Childcraft, honey oak, 2 drawers in base, 4-drawer separate unit, mattress, bumpers, youth bed comforter, $200. Nancye, Ext. 7976.

DINING ROOM - china cabinet, table w/3 leaves, 6 chairs, light color, $400; l/r sofa bed, love seat, chair, light toned, v.g. cond., $250. 744-1706.

LIGHT SWITCHES - 9 brass, 12 outlet covers, $1/ea. or $15/all. Chris, Ext. 4030.

REFRIGERATOR - GE, side-by-side, 18 cu. ft., gold, frost-free, excel., $200; Sears, apt.-size washer & dryer, like new, $400. 265-6542.

REFRIGERATOR - coppertone, 12 cu ft., v.g. cond., $85. Bob, 475-3612 eves. or wknds.

SEWING MACHINE - Singer, pedal-type converted to electric, $25. 722-3905.

SOFA - Queen Anne, barrel back, mahogany trim, beige tapestry velour upholstery, excel. cond., 1929, 72"Lx21"W, $300. Kathy, 395-6520.

SOFA - sleeper, real mattress, $150; oak dresser, $40; glass rosewood table, $50. Jeff, Ext. 2959.

SOFA - 7' & love seat, dk. blue, $100. Steve, Ext. 7252.

TABLE - oak, round, 42" w/18" leaf, 4 matching chairs, excel. cond., $250. 286-8374.

TRASH COMPACTOR - Sears, $75; Kerosun heater, $50; Gibson freezer, upright, $50. Marilyn, Ext. 2259.

WASHER & DRYER - apt.-size, stacking stand, $100. Jon, Ext. 5680, or Donna, 363-3661.

WASHER & DRYER - Kenmore, stackable, excel. cond., $600 neg. F. McKenna, 281-6469.

Tools, House & Garden

CANNA PLANTS - red, 5 bulbs/$1. Jim, 325-9293.

COMPRESSOR - DeVilviss, upright, 60-gallon tank, needs motor, $200. Don, 581-7656.

DOORKNOB SETS - used, bdrm., bath, keyed entry lock sets, deadbolts, $1/ea. Pete, Ext. 5105.

FENCE - used, post & rail, approx. 100', $70; stockade, custom, used, 4 sections, 5'Hx8'L, w/gate, posts, $50. Joe, 981-7719.

LAWN MOWER - needs repair. Janet, Ext. 2345 or 929-3910.

LAWN TRACTOR - 1991, Sears, 38"-cut, leaf bagger, v.g. cond. Ext. 4309.

LAWN TRACTOR - 1992, Craftsman, 14-h.p. Koehler engine, 42" mowing deck, twin rear bagger, like new, $1,475. 286-8374.

PEAT POTS - 105, 3", $5/all. Susan, Ext. 7647.

POOL - ag, w/filter, extras, $100. 543-602.

TOPSOIL - fine screen, 2 yds., $40 delivered locally. 345-3148.

TREES - Japanese maples, $10-$45+. Mauro, 265-6542.

WELL PUMP - 1-h.p., precharge tank, $150; portable dog cage, 42"x21"x27", $40. Rolf, Ext. 4810.

Audio, Video & Computers

COMPUTER - Tandy 1000EX, 8088, 640K RAM, 5.25" & 3.5" drives, 20 MB hard drive w/CGA monitor, joystick, $300. Phil, Ext. 5669.

COMPUTER - Gateway Nomad notebook, new, $1,500 neg. Chuck, 957-2519.

LPs - Franklin Mint Collection, waltzes & overtures, classic violin performances, romantic concerti, hardly ever used. Janet, Ext. 2345 or 929-3910.

STEREO - receiver, $30; microwave, $30; 8 milk crates, $10. Carol, Ext. 7253.

TV - color, used for 1 year, $80. Takao, 341-1012.

VIDEO GAMES - SuperNintendo, 5 games, $200. 924-4070.

Sports, Hobbies & Pets

BICYCLE - girl's, 16" model w/heavy-duty training wheels, $15. Phil, Ext. 5669.

BIKE - Ross Mountain, excel., $195. Pam, Ext. 7286.

COMICS - full, large box, $400 neg.; Batman Nightfall set, $80. 924-4070.

DIGITAL PIANO - Roland, made in Japan, 61 keys w/ recorder, 5 different instrument tones, used for 1 year, excel. cond., orig. $500, now $150. Takao, 341-1012.

FISH TANK - 55-gal., no access., $60. 732-9118.

GOLF CLUBS - 1, 3, 5 woods w/covers, putter, set of irons w/bag and cart, $75. Tom, Ext. 5350.

HOME GYM - Weider, complete workout bench, leg curls, arm press, bench press, $70; DP rower $20. 472-3254.

RABBIT HUTCHES - galvanized steel, various sizes, assembled, $5 ea. Tom, 434-9345.

ROWING MACHINE - West Bend 5100, excel. cond., $40. 924-5181.

SCUBA GEAR - regulator, 2 steel tanks, depth gauge, weight belt, wet suit, knife, 2 spears w/extra tips, $250/firm. 732-9118.

SLEEPING BAG - Coleman, for 1 adult, $10; girl's short-sleeve wet suit, very small, $15. Linda, Ext. 2733 or 878-8491.

Miscellaneous

CAR SEAT - child-size, good cond., $20, high chair, good cond., $20. Phil, Ext. 5669.

ENCYCLOPEDIA - Brittanica, 1967, 23-vol. set, mint cond., $200 neg. Pat, Ext. 2452.

GOWNS - spring/summer, ideal for proms, weddings & parties, size 3-12. Ext. 5938.

LANGUAGE TAPES - Berlitz German lang., includes books, orig. $120, selling for $40. V. Mott, Ext. 7108.

TICKETS - 2 for Yanni at Jones Beach, July 8, $30 ea. 325-1907.

Yard & Garage Sales

ISLIP - Sat./Sun., 6/18-19, 9-5 p.m., crafts, tools, furniture, household items, new items, toys, something for everyone, 52 41st St. off Commack Rd.

Lost & Found

FOUND - hearing aid on Brookhaven Ave., opposite Firehouse. Ken, Ext. 2563.

Car Pools

ROCKY PT.-SHOREHAM-WADING RIVER - 1-4 people to carpool. Mark, Ext. 4125.

LIE EXIT 36 - need 4th for carpool. John, Ext. 5181.

Wanted

BOOKSHELF - computer table, reasonably priced. Peter, Ext. 3890 or 345-9042.

HOUSE SWAP - need house in BNL area, 4-5 rms., to swap w/6 rm., 3 bath in Sergy, France (5 min. CERN), Jul./Aug., 2-3 wk., ASAP. M. Botlo, Ext. 7346.

MOTORCYCLES - bent or broken, any age or cond. Kevin, 281-8031.

MOTORCYCLES - 1900-present, foreign or domestic, complete bikes, also mini bikes. 467-1343.

OUTBOARD MOTOR - 7-12 h.p., long shaft w/battery charger output, need for 23' sailboat. George, Ext. 3061 or 751-0265 eves.

PORCH SWING - bench-like, chain-suspended, for 2 or 3 people. John, Ext. 7671.

PUPPY - call us before the shelter. Jeff, Ext. 2959.

ULTIMATE DISC PLAYERS - join the ultimate flying disc sport, Wed., June 22, 5 p.m., at the field next to the tennis courts. Keith, Ext. 7772; Max, Ext. 2050.

WASHING MACHINE - & clothes dryer, apt.-sized, in working cond., used, reasonable. 924-5231.

WHEELCHAIR - lightweight, folding; flute. Ext. 5329 or 878-2215

WOOD CHIPS - free or inexpensive, to be delivered to Wading River; a Rototiller to rent. Penny, 929-5797.

On-Site Services

OMEGA LEISURE TRAVEL - 5 percent rebate when booking certain cruises, tours, more. Travel Rep. Kerry Fitzgerald, Ext. 5918/5958.

In Appreciation

My mother Mary Cooper and I thank you for your support in contributing to the success of my daughter Orleatra Banks' becoming second runner-up in the All American Girls & Boys Beauty Contest.

— Marylin Banks

Ads left out of this issue due to lack of space need not be resubmitted to appear in the next issue.

The Brookhaven Bulletin is printed on paper containing at least 50 percent recycled materials, with 10 percent post-consumer waste.